

Abstract of the Disclosure

An implantable prosthetic bearing is constructed of a composite material having a first layer and second layer. The first layer has an articulating surface defined therein, whereas the second layer has a engaging surface defined therein for engaging either another prosthetic component or the bone itself. The first layer of the implantable prosthetic bearing is constructed of crosslinked polymer such as UHMWPE, whereas the second layer of the implantable prosthetic bearing is constructed of polymer such as UHMWPE that is either non-crosslinked or crosslinked to a lesser degree than the first layer. In such a manner, the first layer possesses mechanical properties which are advantageous in regard to the articulating surface (e.g., enhanced wear and oxidation resistance), whereas the second layer possesses mechanical properties which are advantageous in regard to the engaging surface (e.g., high ductility, toughness, and creep resistance). A method of making a prosthetic bearing is also disclosed.